Amendments to the Specification

Page 1, lines 10-17, please rewrite as follows:

The recent scientific researchers have reported that lutein, a kind of carotenoid, is associated with risk reduction for age-related macular degeneration (AMD) caused by oxidative damage to macular area of retina (for instance, cf. non-patent literature 1), and that lutein is effective for prevention of arteriosclerosis, prevention of cataract or suppression of carcinogenesis and etc. (for instance, cf. non-patent literatures 2, 3 and 4). ~~As such~~ Thus, lutein is useful as a health food, a dietary supplement, a food color, a pharmaceutical color and a medicinal drug~~, and the use of lutein has been expected~~.

Page 1, lines 18-27, please rewrite as follows:

Lutein is contained in fruits such as oranges, peaches, papayas, prunes and mangos in the form of lutein-fatty acid ester and is also present in many flowers and vegetables, particularly in petals of marigold flowers remarkably. Marigold oleoresin is obtained in the manner that dried and ground marigold flowers are extracted with a hydrocarbon solvent such as hexane, petroleum ether and etc. or with a chlorinated hydrocarbon solvent such as dichloromethane and etc., then the solvent is removed from the extract. ~~The feature of most~~ Most of the commercially available marigold oleoresin is in form of a solid or a paste having a high viscosity at room temperature, and the content of lutein-fatty acid ester in oleoresin is usually 14 to 20% as ester (for instance, cf. patent literature 1).

Page 1, line 28 to page 2, line 10, please rewrite as follows:

In order to use lutein as a health food and a dietary supplement, soft capsules which encapsulate the said marigold oleoresin with gelatin film are prepared. Particularly when the content is oily, it is said that soft capsules are the best of all in terms of easy handling due to the encapsulation of a liquid, protection and stabilization of the contents, homogeneity of the contents, masking of taste and odor, and their highly value-added impression (cf. non-patent literature 5, etc.). Soft capsules are usually produced by die-cutting method in which a fixed amount of contents infused between 2 sheets of gelatin is punched out. To produce soft capsules of the said marigold oleoresin, it is necessary to liquidize the said marigold oleoresin by heating

and fusing ~~in order~~, because the content must be a liquid having a viscosity capable of being injected by a metering pump, not more than 20,000cps, for instance, according to a rotary die method (cf. non-patent literature 5, etc.).

Page 2, lines 21-27, please rewrite as follows:

In addition to the above, a product forming a slurry at room temperature and containing not less than 15% of total carotenoids which is produced by suspending lutein-fatty acid ester extracted from marigold flowers with an edible vegetable oil is commercially available. However, this product has a disadvantage, in addition to the low content of lutein-fatty acid ester, that it entirely becomes solid and is impossible to be filled in soft capsules when it is heated and fused at about 80°C for sterilization and then cooled to a room temperature.

Page 4, lines 1-4, please rewrite as follows:

(1) A method for ~~the purification of~~ producing marigold oleoresin which is characterized by carrying out a step of subjecting marigold oleoresin to supercritical fluid extraction and a step of dissolving marigold oleoresin in a ketone solvent, cooling the solution and removing the ingredient which precipitated in solution.

Page 4, lines 5-11, please rewrite as follows:

(2) A method for ~~the purification of~~ producing marigold oleoresin described in the above (1), which is characterized ~~in that a purified marigold oleoresin of low viscosity and a high lutein content is obtained~~ by carrying out a step of subjecting marigold oleoresin to supercritical fluid extraction and a step of dissolving marigold oleoresin in a ketone solvent, cooling the solution and removing the ingredient which precipitated in solution and isolating a purified marigold oleoresin of low viscosity and a high lutein content.

Page 4, lines 12-14, please rewrite as follows:

(3) A method for ~~the purification of~~ producing marigold oleoresin described in any one of the above (1) to (2), which is characterized by carrying out the step of supercritical fluid extraction in the presence of a diluent.

Page 4, lines 15-18, please rewrite as follows:

(4) A method for ~~the purification of~~ producing marigold oleoresin described in any one of the above (1) to (3), which is characterized by using a supercritical fluid selected from the group consisting of carbon dioxide, ethane, ethylene, propane, toluene and dinitrogen oxide.

Page 4, lines 19-21, please rewrite as follows:

(5) A method for ~~the purification of~~ producing marigold oleoresin described in any of the above (1) to (4), which is characterized in that the ketone solvent ~~described in the above (1)~~ is acetone, methylethylketone or diethylketone.

Page 4, lines 22-26, please rewrite as follows:

(6) A method for ~~the purification of~~ producing marigold oleoresin descried in any one of the above (1) to (5), wherein the step of supercritical fluid extraction is carried out using a carbon dioxide supercritical fluid under the condition that the carbon dioxide pressure is (980 to 2940) $\times 10^4$ Pa (=N/m^2) and the temperature is at critical temperature to 80°C.

Page 4, line 27 to page 5, line 3, please rewrite as follows:

(7) A method for ~~the purification of~~ producing marigold oleoresin described in any one of the above (1) to (5), wherein the step of supercritical fluid extraction is carried out using a carbon dioxide supercritical fluid under the condition that the carbon dioxide pressure is (1470 to 2450) $\times 10^4$ Pa(=N/m^2) and the temperature is at 40 to 60°C.

Page 5, lines 5-7, please rewrite as follows:

(9) Purified marigold oleoresin described in above (8) having low viscosity and a high lutein content ~~obtained by a method described in any one of the above (1) to (7)~~.

Page 5, lines 10-12, please rewrite as follows:

(11) Purified marigold oleoresin described in the above (10) which contains not less than 30% of lutein-fatty acid ester and has a viscosity of not more than 20,000 mPa.s at 30°C.

Page 5, lines 15-16, please rewrite as follows:

(13) Purified marigold oleoresin described in the above (~~11~~ 12), which has a viscosity of not more than 5,000 mPa.s at 30°C.

Page 5, lines 19-20, please insert the following:

The method for producing marigold oleoresin as described above is also a method for the purification of marigold oleoresin.

Page 5, line 24 to page 6, line 3, please rewrite as follows:

Marigold oleoresin used in the present invention is obtained by drying flowers of marigold which is a member of the Compositae family (Tagetes erecta WILLD.), grinding the dried product, optionally converting into pellets, extracting with an organic solvent, usually hexane, and removing the solvent from the extract. The ~~feature~~ product is ~~a~~ solid or a paste at room temperature and has a specific odor. It contains lutein-fatty acid ester as the main component, usually together with fatty acid esters of zeaxanthin and cryptoxanthin. ~~Hence, the lutein-fatty acid ester in the present invention indicates total carotenoid esters containing the all of them mentioned above.~~ Therefore, the term lutein-fatty acid ester as used in the present invention should be construed as the general term encompassing all carotenoid esters including the carotenoid esters mentioned above.

Page 6, lines 4-14, please rewrite as follows:

In the method of the present invention, marigold oleoresin is subjected to supercritical fluid extraction using high-pressure carbon dioxide. Carbon dioxide ~~becomes~~ is in a supercritical state at above the critical point (Temperature: 31.3°C, Pressure: 72.9 atm) and manifests a good solubility. Furthermore, a selective extraction can be carried out with such supercritical fluid by adjusting the pressure of a supercritical fluid supplied to an extraction vessel since the dissolving power of the supercritical fluid can be adjusted by changing pressure or temperature. The extraction vessel used for a step of supercritical extraction in the present invention may be the one which is well known per se in the present field. For instance, an extraction vessel shown in

Fig.2 in page 6 of the official gazette of Japanese Patent Publication S63-112659 can be used.

Page 7, line 26 to page 8, line 4, please rewrite as follows:

A mixture of oleoresin and acetone is stirred for about 0.5 to 1 hour at 40 to 55°C, preferably at 45 to 50°C while keeping moderate refluxing. The mixture is slowly cooled to 10 to 30°C, preferably 15 to 25°C over a period of usually 2 to 4 hours. The cooled mixture is filtered through filter paper or filter fabric with filter aid, if necessary, such as diatomite. Purified marigold oleoresin is obtained by concentrating the filtrate under reduced pressure and removing ~~wherefrom~~ therefrom acetone. The residual solvent in purified marigold oleoresin is removed at a temperature not exceeding 50°C, under reduced pressure, preferably in an atmosphere of nitrogen gas.

Page 9, line 1, please rewrite as follows:

WORKING ~~EXAMPLE~~ EXAMPLES